1880MNRAS..40..285G

W. m. t.

and the sky hazy. *Mimas* cannot be seen with less than 800 mag. power, and 800 makes the images unsteady.

$8^h\ 32^m$. *Mimas* is certainly past, though I can only see it by glimpses. *Enceladus* near elongation is extremely faint.

$9^h\ 13^m$. *Mimas* is just barely seen with 800 A, and not with 600 A.

1879. *Oct.* 16.

p (estimated) 260°. Mag. Power 800 A; Wt. 3.

$10^h\ 27^m.5$. *Mimas* is pretty constantly seen, but is very faint. The sky is hazy.

$10^h\ 51^m.5$. *Mimas* about 4″ *west* of the meridian through the end of the ring.

$11^h\ 4^m.5$. Nearly up.

$11^h\ 13^m.5$. Up.

$11^h\ 17^m.5$. Up, or possibly just past.

Mimas not seen after $11^h\ 18^m$, and only seen four times between that and $10^h\ 50^m$. Sky very hazy and observation unsatisfactory in the highest degree.

The above observations were all that could be obtained during the Opposition, using diligence. They are copied literally from the observing books.

Observations of Saturn's Satellites, made at Mr. E. Crossley's Observatory, Bermerside, Halifax. By Mr. J. Gledhill, F.R.A.S.

The instrument with which the following observations were made is an Equatoreal having an aperture of 9⅓ inches.

Nov. 28th, 1879. Good definition. Power 282. The web was kept bisecting the ball.

Rhea in conjunction with the centre of the ball.

h.	m.		
10	40	G.M.T.	Conjunction has not yet occurred.
	48		In conjunction.
11	0		Certainly past conjunction.

Clouds prevented the observation of Tethys and Enceladus.

Downloaded from http://mnras.oxfordjournals.org/ at University of Alabama at Birmingham on July 26, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System

1880MNRAS..40..286T

Nov. 29th, 1879. Good definition. Power 282. The web was set perpendicular to the plane of the ring.

Tethys in conjunction with west end of ring : *np.*

	h.	m.	
(*a*)	7	20	Not yet in conjunction.
(*b*)		25	In conjunction.
(*c*)		30	Certainly just past.

(*a*), (*c*) good ; (*b*) probably the best observation.

Dec. 6th. *Dione* in conjunction with end of ring : *nf.*

h.	m.	
9	30	Not up yet.
	35	In conjunction.
	40	Past.

Power 282. Pretty good definition.

Notes on the Physical Appearance of Jupiter: being part of the Paper "Observations of Eclipses, Occultations and Phenomena of Jupiter's Satellites made with the 8-inch Equatoreal (Cooke) at the Adelaide Observatory, South Australia" (*ante*, pp. 170–176). By C. Todd, Esq., Director of the Observatory.

1878, July 5, 10.25 P.M.—North of the equatoreal belt was a well-defined streak of dark salmon colour ; the dark belt on the south of the equator was covered with scattered white-looking clouds, to the south of which was a bright belt, having a remarkable bright spot, like a cumulus cloud, on the southern edge ; on the meridian, to the east of which, at some distance, was a well-defined rectangular indentation.—(T.)

July 21, 9.45 P.M.—The appearance of the salmon-coloured streak was as if viewed through a thin veil of cloud. On the south edge of the equatoreal cloud belt was an oval brilliantly white cloud, nearly on the equator and exactly mid planet.—(T.)

July 26, 8.35 P.M.—At three minutes after observation No. 23, the shadow was about its own diameter inside the limb of planet, and immediately following the satellite—in fact, touching it to all appearance. The satellite entered on the dark band north of the equator, the central portions of which were of a bright sienna, or a nearly rose colour. The equatoreal cloud belt was generally diffused, but its central parts were very dense, having the appearance and shape of cumulus clouds. The dark belts have still the appearance as if seen through hazy cloud or fog. The satellite when it first entered planet appeared large and bright, but became gradually smaller—still bright—and the shadow seemed larger than the satellite.—(R.)

July 29, 8.35 P.M.—The equatoreal belt is not so broad or so well defined as usual, and consists of comparatively narrow streaks of broken cloud on the southern edge ; the northern dark belt is not at all well marked, and is of a rose salmon colour, especially on the north side ; the southern dark belt is broken by streaks of white cloud, and is not so well marked or defined, although broader than the northern belt, and is less highly coloured.—(T.)

July 29, 10.50 P.M.—No. 1 satellite and its shadow traversing the north portion of the equatoreal belt, and almost touching each other ; the shadow

Downloaded from http://mnras.oxfordjournals.org/ at University of Alabama at Birmingham on July 26, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System